

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/561,339
Source: IFWP
Date Processed by STIC: 12/29/2005

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 12/29/2005

PATENT APPLICATION: US/10/561,339

TIME: 15:10:35

Input Set : A:\Hogan-Gene, 00914-03.txt

Output Set: N:\CRF4\12292005\J561339.raw

3 <110> APPLICANT: University of Virginia Patent Foundation
 4 Hogan, Kevin T.
 5 Slingluff, Craig L.
 7 <120> TITLE OF INVENTION: TAG-1 and TAG-2 Proteins and Uses Thereof
 9 <130> FILE REFERENCE: 00914-03
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/561,339
 C--> 11 <141> CURRENT FILING DATE: 2005-12-19
 11 <150> PRIOR APPLICATION NUMBER: 60/484,077
 12 <151> PRIOR FILING DATE: 2003-07-01
 14 <150> PRIOR APPLICATION NUMBER: PCT/US/2004/021168
 15 <151> PRIOR FILING DATE: 2004-07-01
 17 <160> NUMBER OF SEQ ID NOS: 46
 19 <170> SOFTWARE: PatentIn version 3.1
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 1319
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Homo sapiens
 26 <400> SEQUENCE: 1
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 29 ctcccacagt gcagcggcgg gctgaaggac tcctcaagtg ccaccaaggt gggagcccag 120
 31 gcagaggagg cgccgagagc gagcgagggc tgccctgccag cacgctgtca cgtctcagca 180
 33 atagactgct cttgaggctg gagtgaatg ttgttatcat agctcactgc aacctggaac 240
 35 ccctagtctc aagagatcct ccagcctcag cctccctggg atggctatct ttgttacttc 300
 37 tgaattctac tacaaaagag tgctgcaata aaaatctttg aacaagttct aatgccgttc 360
 39 aactggaatt gaagttttca atcgttggat atgtcaaaat ttaatcagat tgtatattgc 420
 41 tcaattactt tcaaattatg tacaccaagt cattcttgct ctggcaaaat aagaatattt 480
 43 tcattaatat atcattcaac ttgaaattgc ccagcttttc cttctcattt cccccagtc 540
 45 aaatgagttg aattaatact gtctaaaaat atatattcat ttgcttacct gttagtattt 600
 47 gttccatgta ttaagaagct ttgctagtat atgaaaatat atgtattacc atgtcttggtg 660
 49 aattagtact tttatcattt tgaaatgttt gttttcattt ctgctgaccg ttctaacctg 720
 51 ggtatctatt ttgactgggt tttaatgtaa ctactaacat ctttttatgt tcagcacttt 780
 53 ttcacaattt tactttcaat gtctttatct ttaaaatgta tcttctgtag acagtgtaca 840
 55 ggtggtcttg ttttattgta aatcaagtga caatctctat ttcataattg acatatttaa 900
 57 tccatatata ttttaatttaa ttgttggtat tttgagactt aatatccagt tttactattt 960
 59 tggcccatct atttttgggt tattttagat gtcttgccct atcttagatt gattgatatt 1020
 61 ttttagtatt aattacattt cttttataaa tgtaatttct tgaatatttg tttttatttt 1080
 63 agcaattgct ctgggaatat aaaaatcatc tttaaaatct atttagagtt aatggtacta 1140
 65 ctttatgcag taggtaaaaa catttcacta gcacaatttc atttgaggc acctaacctt 1200
 67 ctgtgatagt attgtcttat attgttatat ttatgagata caatcactac agtaaaatac 1260
 69 tattttctat tcattgtgcc atcttataaa taaacagatg aataaacaga tatttttga 1319
 72 <210> SEQ ID NO: 2
 73 <211> LENGTH: 670
 74 <212> TYPE: DNA

CP9-67

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75 <213> ORGANISM: Homo sapiens

77 <400> SEQUENCE: 2

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78 ctccacaccg ccttgcaagc tgagggagcc ggctccggcc tctgccagcc caggaagggg    60
80 ctcccacagt gcagcggcgg gctgaaggac tcctcaagtg ccaccaaagt gggagcccag    120
82 gcagaggagg cgccgagagc gagcgagggc tgcctgccag cacgctgtca cgtctcagca    180
84 atagactgct cttgaggctg gagtgcaatg ttgttatcat agctcactgc aacctggaac    240
86 ccctagtctc aagagatcct ccagcctcag cctccctggt ccaggataca tgtgcaggat    300
88 gtgcaagttt gctacatggg taaatatgtg ccatggcagt ttgctgcatc tattaaccca    360
90 ttacctaggt attaagcccg atacaagagt tatggaaaag ctgcaactct ctacttccaa    420
92 agtttaactt cttcacagaa gtcagtttca gagttgagaa aagcaaatac ttgctacata    480
94 ttttgaggaa caataagtat tgaagttgca aacaggttct atggatattt gtcaacagaa    540
96 gatagctgat cacaatgcg cagagaggta gaaaaatgac acaatgacca ccctaccctc    600
98 tgagtcagca aattgttttc tcagtacatt tctactctgg tccttgttta ataaaacctc    660
100 tttctcctta                                     670

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103 <210> SEQ ID NO: 3

104 <211> LENGTH: 541

105 <212> TYPE: DNA

106 <213> ORGANISM: Homo sapiens

108 <400> SEQUENCE: 3

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109 ctccacaccg ccttgcaagc tgagggagcc ggctccggcc tctgccagcc caggaagggg    60
111 ctcccacagt gcagcggcgg gctgaaggac tcctcaagtg ccaccaaagt gggagcccag    120
113 gcagaggagg cgccgagagc gagcgagggc tgcctgccag cacgctgtca cgtctcagca    180
115 atagactgct cttgaggctg gagtgcaatg ttgttatcat agctcactgc aacctggaac    240
117 ccctagtctc aagagatcct ccagcctcag cctccctggt ccaggataca tgtgcaggat    300
119 gtgcaagttt gctacatggg taaatatgtg ccatggcagt ttgctgcatc tattaaccca    360
121 ttacctaggt attaagcccg gaaataagaa tggcagaaaa tgtgaagagt tattgtgtgg    420
123 ggaagtggcc tctacataga aatgtttttc cactgaatgt tcctgttgtg ctgatgaaca    480
125 aaggagttca tcacaggcca gaaactaaga tagatagata aataaataaa taaataaata    540
127 a                                              541

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130 <210> SEQ ID NO: 4

131 <211> LENGTH: 624

132 <212> TYPE: DNA

133 <213> ORGANISM: Homo sapiens

135 <400> SEQUENCE: 4

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136 ctccacaccg ccttgcaagc tgagggagcc ggctccggcc tctgccagcc caggaagggg    60
138 ctcccacagt gcagcggcgg gctgaaggac tcctcaagtg ccaccaaagt gggagcccag    120
140 gcagaggagg cgccgagagc gagcgagggc tgcctgccag cacgctgtca cgtctcagca    180
142 atagactgct cttgaggctg gagtgcaatg ttgttatcat agctcactgc aacctggaac    240
144 ccctagtctc aagagatcct ccagcctcag cctccctggt ccaggataca tgtgcaggat    300
146 gtgcaagttt gctacatggg taaatatgtg ccatggcagt ttgctgcatc tattaaccca    360
148 ttacctaggt attaagcccg atcccagaaa acctgcagag agaagcagca gctggacctc    420
150 gggatgacta tggctggacg tcaggagaga agcagtttga cttcagaggg acagcttgat    480
152 ggtgtaactt cagagaagaa tctggttaga gatggctaga ctccaggaaa agattaccta    540
154 cccttccccct acccttttct cagctccccct tcccactgag agccactttc accgcaataa    600
156 aatccccccac atgcactatc cttc                                     624

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159 <210> SEQ ID NO: 5

160 <211> LENGTH: 542

161 <212> TYPE: DNA

162 <213> ORGANISM: Homo sapiens

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164 <400> SEQUENCE: 5
165 ctccacaccg ccttgcaagc tgagggagcc ggctccggcc tctgccagcc caggaagggg      60
166 ctccacacagt gcagcggcgg gctgaaggac tcctcaagtg ccaccaaagt gggagcccag      120
167 gcagaggagg cgccgagagc gagcgagggc tgcctgccag cacgctgtca cgtctcagca      180
171 atagactgct cttgagttcc aggatacatg tgcaggatgt gcaagtttgc tacatgggta      240
173 aatatgtgcc atggcagttt gctgcatcta ttaacccatt acctaggtat taagcccgat      300
175 cccagaaaac ctgcagagag aagcagcagc tggacctcgg gatgactatg gctggacgct      360
177 aggagagaag cagtttgact tcagagggac agcttgatgg tgtaacttca gagaagaatc      420
179 tggtttagaga tggctagact ccaggaaaag attacctacc cttcccctac ctttttctca      480
181 gctccccttc ccaactgagag ccactttcac cgcaataaaa tccccacat gcactatcct      540
183 tc                                                                                   542

186 <210> SEQ ID NO: 6
187 <211> LENGTH: 99
188 <212> TYPE: PRT
189 <213> ORGANISM: Homo sapiens
191 <400> SEQUENCE: 6
193 Leu Pro Ala Gln Glu Gly Ala Pro Thr Val Gln Arg Arg Ala Glu Gly
194 1                    5              10              15
197 Leu Leu Lys Cys His Gln Ser Gly Ser Pro Gly Arg Gly Gly Ala Glu
198                20              25              30
201 Ser Glu Arg Gly Leu Pro Ala Ser Thr Leu Ser Arg Leu Ser Asn Arg
202                35              40              45
205 Leu Leu Leu Arg Leu Glu Cys Asn Val Val Ile Ile Ala His Cys Asn
206                50              55              60
209 Leu Glu Pro Leu Val Ser Arg Asp Pro Pro Ala Ser Ala Ser Leu Gly
210 65              70              75              80
213 Trp Leu Phe Leu Leu Leu Asn Ser Thr Thr Lys Glu Cys Cys Asn
214                85              90              95
217 Lys Asn Leu

221 <210> SEQ ID NO: 7
222 <211> LENGTH: 63
223 <212> TYPE: PRT
224 <213> ORGANISM: Homo sapiens
226 <400> SEQUENCE: 7
228 Leu Pro Ala Ser Thr Leu Ser Arg Leu Ser Asn Arg Leu Leu Leu Arg
229 1                    5              10              15
232 Leu Glu Cys Asn Val Val Ile Ile Ala His Cys Asn Leu Glu Pro Leu
233                20              25              30
236 Val Ser Arg Asp Pro Pro Ala Ser Ala Ser Leu Gly Trp Leu Phe Leu
237                35              40              45
240 Leu Leu Leu Asn Ser Thr Thr Lys Glu Cys Cys Asn Lys Asn Leu
241                50              55              60

244 <210> SEQ ID NO: 8
245 <211> LENGTH: 59
246 <212> TYPE: PRT
247 <213> ORGANISM: Homo sapiens
249 <400> SEQUENCE: 8
251 Thr Leu Ser Arg Leu Ser Asn Arg Leu Leu Leu Arg Leu Glu Cys Asn
252 1                    5              10              15

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```

255 Val Val Ile Ile Ala His Cys Asn Leu Glu Pro Leu Val Ser Arg Asp
256          20          25          30
259 Pro Pro Ala Ser Ala Ser Leu Gly Trp Leu Phe Leu Leu Leu Leu Asn
260          35          40          45
263 Ser Thr Thr Lys Glu Cys Cys Asn Lys Asn Leu
264          50          55
267 <210> SEQ ID NO: 9
268 <211> LENGTH: 93
269 <212> TYPE: PRT
270 <213> ORGANISM: Homo sapiens
272 <400> SEQUENCE: 9
274 Leu Pro Ala Gln Glu Gly Ala Pro Thr Val Gln Arg Arg Ala Glu Gly
275 1          5          10          15
278 Leu Leu Lys Cys His Gln Ser Gly Ser Pro Gly Arg Gly Gly Ala Glu
279          20          25          30
282 Ser Glu Arg Gly Leu Pro Ala Ser Thr Leu Ser Arg Leu Ser Asn Arg
283          35          40          45
286 Leu Leu Leu Arg Leu Glu Cys Asn Val Val Ile Ile Ala His Cys Asn
287          50          55          60
290 Leu Glu Pro Leu Val Ser Arg Asp Pro Pro Ala Ser Ala Ser Leu Phe
291 65          70          75          80
294 Gln Asp Thr Cys Ala Gly Cys Ala Ser Leu Leu His Gly
295          85          90
298 <210> SEQ ID NO: 10
299 <211> LENGTH: 57
300 <212> TYPE: PRT
301 <213> ORGANISM: Homo sapiens
303 <400> SEQUENCE: 10
305 Leu Pro Ala Ser Thr Leu Ser Arg Leu Ser Asn Arg Leu Leu Leu Arg
306 1          5          10          15
309 Leu Glu Cys Asn Val Val Ile Ile Ala His Cys Asn Leu Glu Pro Leu
310          20          25          30
313 Val Ser Arg Asp Pro Pro Ala Ser Ala Ser Leu Phe Gln Asp Thr Cys
314          35          40          45
317 Ala Gly Cys Ala Ser Leu Leu His Gly
318          50          55
321 <210> SEQ ID NO: 11
322 <211> LENGTH: 53
323 <212> TYPE: PRT
324 <213> ORGANISM: Homo sapiens
326 <400> SEQUENCE: 11
328 Thr Leu Ser Arg Leu Ser Asn Arg Leu Leu Leu Arg Leu Glu Cys Asn
329 1          5          10          15
332 Val Val Ile Ile Ala His Cys Asn Leu Glu Pro Leu Val Ser Arg Asp
333          20          25          30
336 Pro Pro Ala Ser Ala Ser Leu Phe Gln Asp Thr Cys Ala Gly Cys Ala
337          35          40          45
340 Ser Leu Leu His Gly
341          50

```

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Input Set : A:\Hogan-Gene, 00914-03.txt

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344 <210> SEQ ID NO: 12
345 <211> LENGTH: 9
346 <212> TYPE: PRT
347 <213> ORGANISM: Homo sapiens
349 <400> SEQUENCE: 12
351 Arg Leu Ser Asn Arg Leu Leu Leu Arg
352 1 5
355 <210> SEQ ID NO: 13
356 <211> LENGTH: 9
357 <212> TYPE: PRT
358 <213> ORGANISM: Artificial Sequence
360 <220> FEATURE:
361 <223> OTHER INFORMATION: Synthetic derivative of SEQ ID NO: 12
363 <220> FEATURE:
364 <221> NAME/KEY: MISC_FEATURE
365 <222> LOCATION: (1)..(1)
366 <223> OTHER INFORMATION: wherein X is His, Arg or Lys
369 <400> SEQUENCE: 13
W--> 371 Xaa Leu Ser Asn Arg Leu Leu Leu Arg
372 1 5
375 <210> SEQ ID NO: 14
376 <211> LENGTH: 9
377 <212> TYPE: PRT
378 <213> ORGANISM: Artificial Sequence
380 <220> FEATURE:
381 <223> OTHER INFORMATION: Synthetic derivative of SEQ ID NO: 12
383 <220> FEATURE:
384 <221> NAME/KEY: MISC_FEATURE
385 <222> LOCATION: (2)..(2)
386 <223> OTHER INFORMATION: wherein X is Met Leu, Ile or Val
389 <400> SEQUENCE: 14
W--> 391 Arg Xaa Ser Asn Arg Leu Leu Leu Arg
392 1 5
395 <210> SEQ ID NO: 15
396 <211> LENGTH: 9
397 <212> TYPE: PRT
398 <213> ORGANISM: Artificial Sequence
400 <220> FEATURE:
401 <223> OTHER INFORMATION: Synthetic derivative of SEQ ID NO: 12
403 <220> FEATURE:
404 <221> NAME/KEY: MISC_FEATURE
405 <222> LOCATION: (3)..(3)
406 <223> OTHER INFORMATION: X is Ala, Ser, Thr, Pro or Gly
409 <400> SEQUENCE: 15
W--> 411 Arg Leu Xaa Asn Arg Leu Leu Leu Arg
412 1 5
415 <210> SEQ ID NO: 16
416 <211> LENGTH: 9
417 <212> TYPE: PRT

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RAW SEQUENCE LISTING ERROR SUMMARY

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Input Set : A:\Hogan-Gene, 00914-03.txt

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 1
Seq#:14; Xaa Pos. 2
Seq#:15; Xaa Pos. 3
Seq#:16; Xaa Pos. 4
Seq#:17; Xaa Pos. 5
Seq#:18; Xaa Pos. 6
Seq#:19; Xaa Pos. 7
Seq#:20; Xaa Pos. 8
Seq#:21; Xaa Pos. 9
Seq#:44; Xaa Pos. 2,6,7,8

VERIFICATION SUMMARY

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Input Set : A:\Hogan-Gene, 00914-03.txt

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:471 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:488 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:508 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0